NOvA AEM Update

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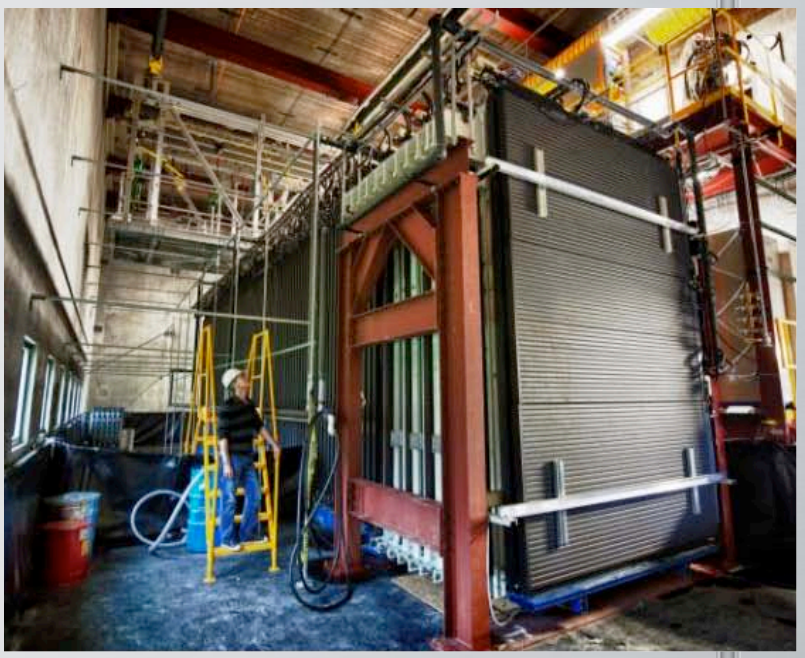
October 1, 2012

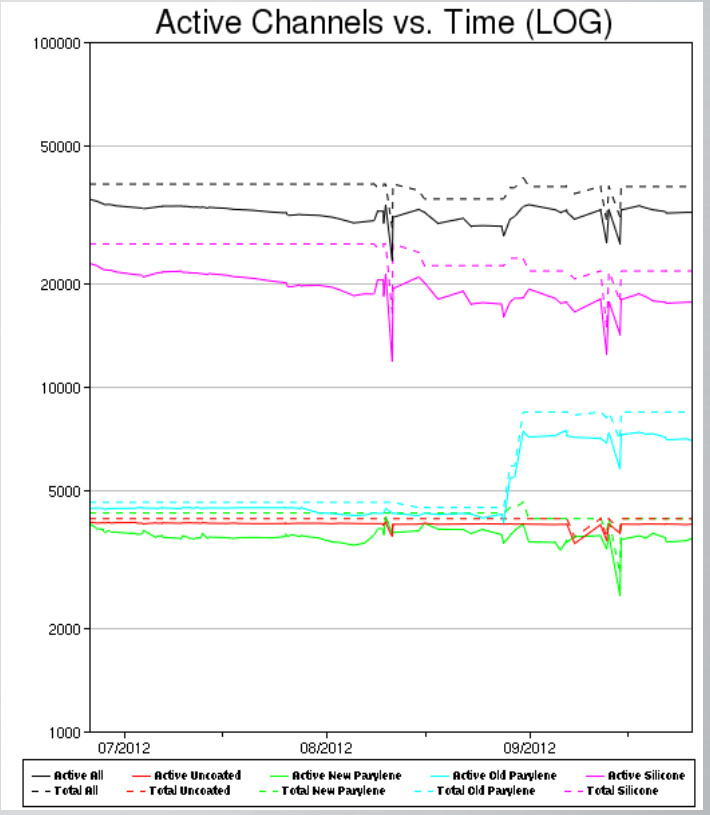
Outline

- Since the shutdown, NOvA has remained extremely busy.
  - NDOS (prototype near detector) continues to operate
  - Far detector construction in full swing
  - Near detector cavern excavation in progress
  - Analysis preparations are ramping up

NDOS Operation

- Continue to operate (unattended) the surface prototype
- Evaluating APD performance which different surface coatings and cooling conditions
- Development platform for DAQ and DCS systems
- Recording cosmic data for analysis





Far Detector Constuction

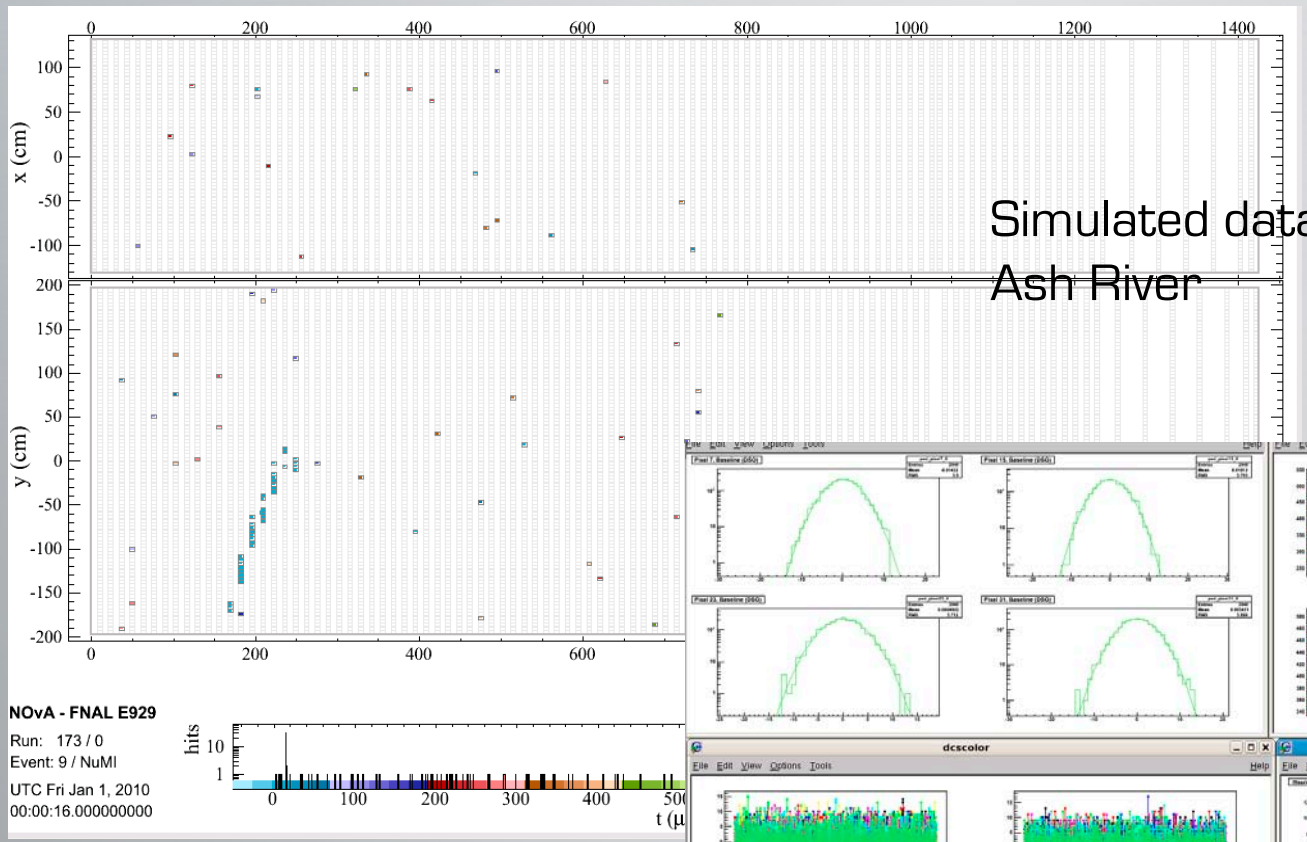
Our first far detector block is now in place!
http://www.youtube.com/watch?v=gFpK0OWJl90&sns=tw

- Follow the progress at http://www.fnal.gov/pub/webcams/nova_webcam/
- Or http://www-nova.fnal.gov
- Or twitter.com/novanuz
- Or https://www.facebook.com/novaexperiment

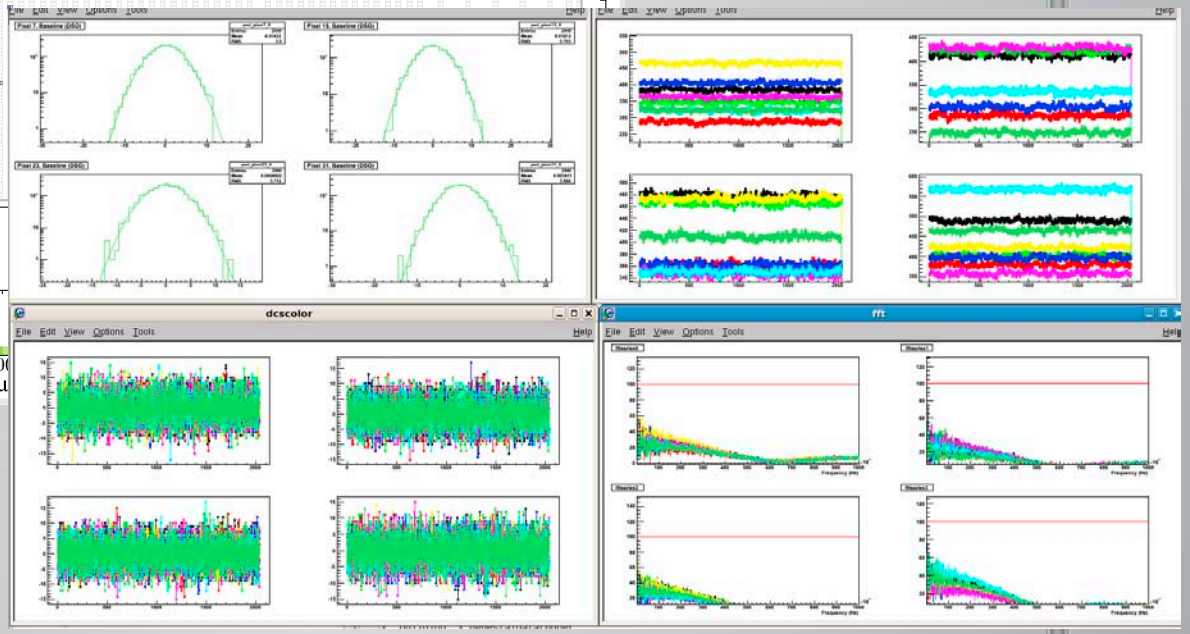
Far Detector Constuction

Far Detector Constuction

- Computer infrastructure is also coming into place



Simulated data running in Ash River



DSO data from front end electronics on AR test stand

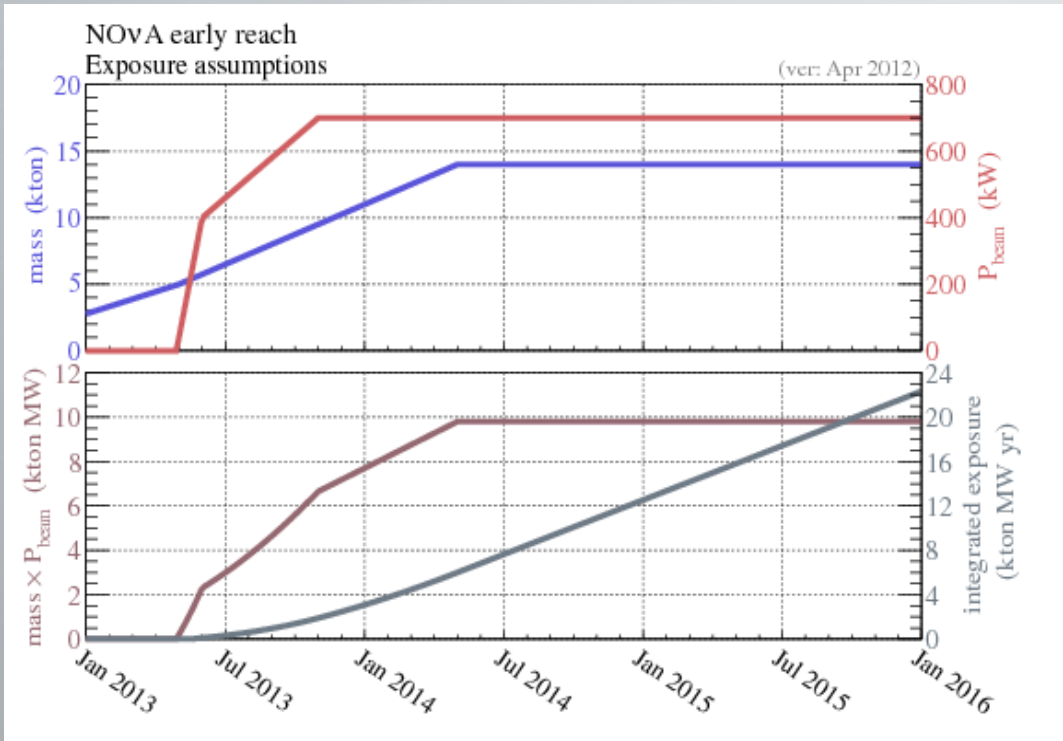
ND cavern excavation

Preparations for excavation began shortly after accelerator shutdown

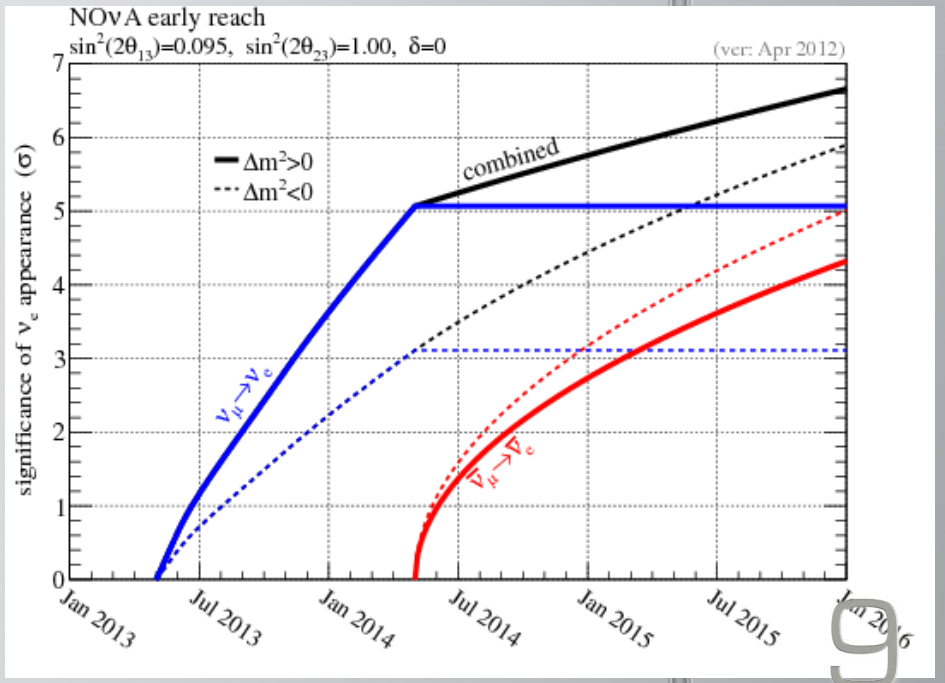
ND cavern excavation

First access expected next spring

NOvA Physics



We anticipate multiple ktons of outfitted detector to be available on return of beam next year.



NOvA has formalized its analysis efforts and now has nu_e, nu_mu, and exotics groups actively preparing for the arrival of data. Mock data challenges are underway with first results expected in two week at collaboration meeting.

Conclusion and Next Steps

- Our prototype detector continues to operate and provide valuable systems feedback. We will continue to operate until it is no long useful.
- Far detector construction is underway (2nd Block will be placed later this week)
- Outfitting will begin very soon and filling once several more blocks have been placed
- Near detector excavation is happening now as well.
- The CDF assembly area will be used for ND assembly. Prep is underway
- NOvA is on track to begin data taking as soon as beam returns and will quickly begin to produce meaningful physics
- THANKS!